

## **Summary of the Sampling Activities Conducted at the Wolverine Worldwide Tannery Site:**

12-27-18:

Two separate sampling teams conducted residential sampling at target homes.

Sampling team #1 consisted of 2 START members and 1 EPA member (Peggy Donnelly) and collected residential water samples from 9 homes in conjunction with sampling being conducted by Wolverine contractors. These homes all have had filtration systems installed by Wolverine prior to the sampling event (in most cases the filtration systems were installed the week of 12-18). At each location 1 sample was collected prior to any filtration (typically where just after the pressure tank as water is coming in from the well) and 1 sample was collected after the filtration system (from a sampling port installed during the installation of the filtration system).

Sampling team #2 consisted of 2 START members and 2 EPA members (OSC Kimble and CI Chelsea) and collected residential water samples from 7 homes selected by EPA for investigation. Only 1 of these homes had filtration systems installed by Wolverine prior to the sampling event. The rest either had no filtration system at all or owner installed filtration systems (particulate filter, water softener, etc.). At each location 1 sample was collected prior to any filtration and a second sample was collected post filtration for those homes which had filtration systems.

For each sampling team, water was purged from a kitchen sink or other post-filtration location in the home for a minimum of 15 minutes prior to sampling. A Field Reagent Blank (FRB) was also collected at each residence during the sampling.

In total: 16 residences were sampled for a total of 29 samples and 16 FRB samples. Additionally 4 duplicate samples and 1 MS/MSD sample were collected. These samples were shipped to Eurofins Lab in Lancaster PA on 12-28-17 for 5-day TAT analysis using EPA Method 537 v 1.1. Attached is a copy of the COCs from Eurofins.

Samples from 10 of these sampling locations (and 1 duplicate sample) were also collected for analysis by CRL using ASTM Method D7979, however the lab was instructed not to analyze these samples and to be held at the lab awaiting further instruction. Per CRL instruction, at each sampling location 3 separate sample bottles were collected and marked as A, B, and C for lab analysis.

12-28-17:

A sampling team consisting of 2 START members and 2 EPA members (OSC Kimble and Peggy Donnelly) in cooperation with 2 personnel from Wolverine's contractor Rose & Westra a subdivision of GZA (RW/GZA) conducted monitoring well and surface water sampling. 2 monitoring wells were sampled using a bladder pump from selected wells on the House Street Landfill property. 3 monitoring wells were sampled using a peristaltic pump from selected wells on the Former Wolverine Tannery property. All wells were sampled using low-flow techniques which call for stabilization of water quality parameters prior to sample collection. However some minor modifications had to be made in the field due to the very cold conditions encountered which caused problems for some of the equipment. Specifically, one of the water quality instruments was not sealing properly which caused issues with the Dissolved Oxygen readings and as such DO was not stabilized in those instances. Surface water samples were also collected from 1 location at Rum Creek and 1 location at the Rogue River (where open water was encountered) coinciding with locations sampled previously by RW/GZA.

In total: 5 monitoring well samples and 2 surface water samples were collected. Additionally 1 duplicate sample and 1 MS/MSD sample were collected. These samples were delivered to the CRL on 12-29-17 for analysis by ASTM method D7979. Per CRL instruction, at each sampling location 3 separate sample bottles were collected and marked as A, B, and C for lab analysis.

**Sample Results to date (1/15/18):****CRL Lab:**

The samples collected from residential well locations for drinking water analysis which were split with Eurofins and CRL labs are still on hold with CRL awaiting further instruction.

Preliminary results for the drinking water and surface water samples have been obtained from CRL lab and are included in attached table "WWW CRL Results Comparison". These results are compared to historical results collected by RW/GZA in August, September, and October of 2017. Additionally, RW/GZA collected samples to split with EPA during the sampling activities on 12/28/17. That data has yet to be received from RW/GZA.

**Eurofins Lab:**

Of the 16 residences sampled for drinking water analysis by Eurofins Lab, 6 of those residences have full data sets of preliminary data that have been obtained so far. The status of samples received by Eurofins to date is outlined in the attached table "Wolverine Sampling Summary 011518". Results are summarized in the attached individual tables

**Ex. 6 - Personal Privacy**

We are still waiting for sample results for 14 individual samples (10 field reagent blanks and 4 residential water sample results). Field Reagent Blanks (FRB) are only activated to be analyzed if the sample result for any of the residential water samples associated with that FRB have detections above the reporting limit (or limit of quantitation) which resulted in 6 FRBs not being analyzed. The results for the FRBs are therefore delayed as the analysis is not activated until the results from the associated samples are obtained.

The "Wolverine Sampling Summary 011518" table also summarizes which samples have historically also been collected by Wolverine previously. We are in the process of gathering this Wolverine historical data to compare to EPA results. At 4 residences, we currently have historical data for pre-filter samples from Wolverine, however that data is only available as a combined PFOS and PFOA result. Those results have been included in the individual tables and we will continue to try and obtain the rest of the Wolverine historic dataset for comparison.

Additionally the table summarizes samples that were collected by RW/GZA at the exact same location and on the same day that EPA collected samples from homes that have whole house filtration systems installed by Wolverine. It should be noted that RW/GZA collected "pre-filter" samples at these locations from a sampling port installed downstream of a particulate filter and EPA collected "pre-filter" samples from a spigot located where the piping from the well enters the home and enters the pressure tank. Therefore the pre-filter samples collected by EPA and by RW/GZA were not collected from the exact same location.